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OCT 26 2006

REMARKS

Claims 1-20 are pending. Claims 5, 8, 9, 15, 18, and 19 were objected to because of informalities. Claims 5, 8, 15, and 18 have been amended to correct informalities. Claims 9 and 19 were objected to as being dependent upon objected to claims but are now believed to be allowable. Independent claims 1, 11, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over newly cited Keller (USP 6,490,661) in view of newly cited Hughes (USP 6,973,543).

Keller describes a messaging scheme for cache coherence data transfers during a memory read operation in a multiprocessing computer system. Keller does not describe multiple clusters of processors, but instead describes a single cluster of processors. Similarly, it is believed that Keller does not teach or suggest any remote clusters of processors. Hughes similarly does not teach or suggest any remote clusters of processors.

The Examiner argues that remote clusters are hard drives that can be connected to an I/O bridge 20. The Examiner proceeds to cite Hughes which describes hard drives that can be connected to an I/O bridge. The Applicants respectfully disagree that hard drives are remote clusters. Independent claim 1 recites memory lines of remote clusters. It is believed that remote clusters as described in the specification indicate that remote clusters are remote clusters of processors. Nonetheless, the independent claims are being amended to clarify the invention.

The independent claims now recite "wherein the remote data cache receives data and state information for memory lines of remote clusters, each remote cluster including a plurality of remote cluster processors." As noted by the Examiner, neither Hughes nor Keller alone or in combination teach or suggest each remote cluster including a plurality of remote cluster processors. Hard drives are not remote cluster processors.

Furthermore, even if hard drives were remote clusters, hard drives do not have memory lines. Cache and memory have memory lines. Data written to hard drives is written in blocks. A hard drive does not have memory lines. Mechanisms for writing memory and hard drives are different. Hard drives are accessed by reading blocks and writing blocks, whereas memory and

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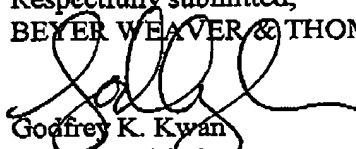
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cache, for example, allow reading and writing of memory lines.

The claims also recite "wherein the remote data cache receives data and state information for memory lines of remote clusters." It is unclear where the Examiner believes Hughes or Keller describes state information for memory lines in hard drives. It is respectfully submitted that hard drive data blocks are typically stateless. A memory does not receive any state information about a block of data. By contrast, remote cluster processors have memory lines with state, for example. Particular examples of states include modified, exclusive, shared, owned, etc. In particular examples, remote cluster of processors include memory lines that have particular data and state information. A remote data cache receives the data and state information for memory lines of remote clusters.

In light of the above remarks relating to independent claims and certain dependent claims, the remaining dependent claims are believed allowable for at least the reasons noted above. Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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